

**WHAT IS CLAIMED IS:**

1. An image processing apparatus which accesses a database that stores items of characteristic quantity information to be used for recognizing, in image data, respective objects and items of color information of the respective objects, the characteristic quantity information and the color information are correlated with each other for the respective objects, comprising:

means for performing image recognition processing on image data using the items of characteristic quantity information stored in the database and for acquiring color information of an object that has been recognized in the image data by the image recognition processing; and

means for searching the database to retrieve the color information indicating a color of the object recognized by the image recognition processing and for identifying a color space of the image data by comparing the acquired color information with the retrieved color information.

2. The image processing apparatus according to claim 1, further comprising:  
means for performing statistical processing on identification results of color spaces of the image data that was previously processed; and  
means for performing prescribed processing using a result of the statistical processing.

3. The image processing apparatus according to claim 1, wherein the acquired color information of the object that has been recognized in the image data is acquired by converting the image data into a reference color space a plurality of times using different conversion parameters each time, each of the different conversion parameters corresponding to a different color space.

4. The image processing apparatus according to claim 1, wherein the color information stored in the database includes at least one or more of: information indicating a saturation range, information indicating a hue range, and information indicating a target color.

5. The image processing apparatus according to claim 2, wherein the result of the statistical processing includes at least one or more of: a saturation histogram, a hue histogram, and an average color.

6. An image processing apparatus which accesses a database that stores items of characteristic quantity information to be used for recognizing, in image data, respective objects and items of color information of the respective objects, the characteristic quantity

information and the color information are correlated with each other for the respective objects, the image processing apparatus comprising:

a controller that: (1) performs image recognition processing on image data using the items of characteristic quantity information stored in the database, and acquires color information of an object that has been recognized in the image data by the image recognition processing; and (2) searches the database to retrieve the color information indicating a color of the object recognized by the image recognition processing and identifies a color space of the image data by comparing the acquired color information with the retrieved color information.

7. The image processing apparatus according to claim 6, wherein the controller also: (3) performs statistical processing on identification results of color spaces of the image data that was previously processed; and (4) performs prescribed processing using a result of the statistical processing.

8. The image processing apparatus according to claim 6, wherein the controller acquires the color information of the object that has been recognized in the image data by converting the image data into a reference color space a plurality of times using different conversion parameters each time, each of the different conversion parameters corresponding to a different color space.

9. The image processing apparatus according to claim 6, wherein the color information stored in the database includes at least one or more of: information indicating a saturation range, information indicating a hue range, and information indicating a target color.

10. The image processing apparatus according to claim 7, wherein the result of the statistical processing includes at least one or more of: a saturation histogram, a hue histogram, and an average color.

11. An image processing apparatus which accesses a database that stores items of characteristic quantity information to be used for recognizing, in image data, respective objects and items of color information of the respective objects, the characteristic quantity information and the color information are correlated with each other for the respective objects, comprising:

means for judging whether information indicating a color space of image data, and which is appended to and input together with the image data, satisfies a prescribed condition;

means for performing image recognition processing on the image data using the items of characteristic quantity information stored in the database and for acquiring color

information of an object that has been recognized in the image data by the image recognition processing, if it is judged that the information indicating the color space and that is appended to the image data does not satisfy the prescribed condition; and

means for searching the database to retrieve the color information indicating a color of the object recognized by the image recognition processing and for identifying a color space of the image data by comparing the acquired color information with the retrieved color information.

12. The image processing apparatus according to claim 11, further comprising:  
means for performing statistical processing on identification results of color spaces of the image data that was previously processed; and  
means for performing prescribed processing using a result of the statistical processing.

13. The image processing apparatus according to claim 11, wherein the acquired color information of the object that has been recognized in the image data is acquired by converting the image data into a reference color space a plurality of times using different conversion parameters each time, each of the different conversion parameters corresponding to a different color space.

14. The image processing apparatus according to claim 11, wherein the color information stored in the database includes at least one or more of: information indicating a saturation range, information indicating a hue range, and information indicating a target color.

15. The image processing apparatus according to claim 12, wherein the result of the statistical processing includes at least one or more of: a saturation histogram, a hue histogram, and an average color.

16. An image processing apparatus which accesses a database that stores items of characteristic quantity information to be used for recognizing, in image data, respective objects and items of color information of the respective objects, the characteristic quantity information and the color information are correlated with each other for the respective objects, the image processing apparatus comprising:

a controller that: (1) judges whether information indicating a color space of image data, and which is appended to and input together with the image data, satisfies a prescribed condition; (2) performs image recognition processing on the image data using the items of characteristic quantity information stored in the database, and acquires color information of an object that has been recognized in the image data by the image recognition processing, if it is judged that the information indicating the color space and that is appended

to the image data does not satisfy the prescribed condition; and (3) searches the database to retrieve the color information indicating a color of the object recognized by the image recognition processing, and identifies a color space of the image data by comparing the acquired color information with the retrieved color information.

17. The image processing apparatus according to claim 16, wherein the controller also: (3) performs statistical processing on identification results of color spaces of the image data that was previously processed; and (4) performs prescribed processing using a result of the statistical processing.

18. The image processing apparatus according to claim 16, wherein the controller acquires the color information of the object that has been recognized in the image data by converting the image data into a reference color space a plurality of times using different conversion parameters each time, each of the different conversion parameters corresponding to a different color space.

19. The image processing apparatus according to claim 16, wherein the color information stored in the database includes at least one or more of: information indicating a saturation range, information indicating a hue range, and information indicating a target color.

20. The image processing apparatus according to claim 17, wherein the result of the statistical processing includes at least one or more of: a saturation histogram, a hue histogram, and an average color.

21. An image processing method using an image processing apparatus which accesses a database that stores items of characteristic quantity information to be used for recognizing, in image data, respective objects and items of color information of the respective objects, the characteristic quantity information and the color information are correlated with each other for the respective objects, comprising the steps of:

performing image recognition processing on image data using the items of characteristic quantity information stored in the database, and acquiring color information of an object that has been recognized in the image data by the image recognition processing; and searching the database to retrieve the color information indicating a color of the object recognized by the image recognition processing, and identifying a color space of the image data by comparing the acquired color information with the retrieved color information.

22. The image processing method according to claim 21, further comprising: performing statistical processing on identification results of color spaces of the image data that was previously processed; and

performing prescribed processing using a result of the statistical processing.

23. The image processing method according to claim 21, wherein the acquired color information of the object that has been recognized in the image data is acquired by converting the image data into a reference color space a plurality of times using different conversion parameters each time, each of the different conversion parameters corresponding to a different color space.

24. The image processing method according to claim 21, wherein the color information stored in the database includes at least one or more of: information indicating a saturation range, information indicating a hue range, and information indicating a target color.

25. The image processing method according to claim 22, wherein the result of the statistical processing includes at least one or more of: a saturation histogram, a hue histogram, and an average color.

26. An image processing program for causing a computer which accesses a database that stores items of characteristic quantity information to be used for recognizing, in image data, respective objects and items of color information of the respective objects, the characteristic quantity information and the color information are correlated with each other for the respective objects, to execute the steps of:

performing image recognition processing on image data using the items of characteristic quantity information stored in the database, and acquiring color information of an object that has been recognized in the image data by the image recognition processing; and  
searching the database to retrieve the color information indicating a color of the object recognized by the image recognition processing, and identifying a color space of the image data by comparing the acquired color information with the retrieved color information.

27. An image processing method using an image processing apparatus which accesses a database that stores items of characteristic quantity information to be used for recognizing, in image data, respective objects and items of color information of the respective objects, the characteristic quantity information and the color information are correlated with each other for the respective objects, comprising the steps of:

judging whether information indicating a color space of image data, and which is appended to and input together with the image data, satisfies a prescribed condition;

performing image recognition processing on the image data using the items of characteristic quantity information stored in the database, and acquiring color information of an object that has been recognized in the image data by the image recognition processing, if it

is judged that the information indicating the color space and that is appended to the image data does not satisfy the prescribed condition; and

searching the database to retrieve the color information indicating a color of the object recognized by the image recognition processing, and identifying a color space of the image data by comparing the acquired color information with the retrieved color information.

28. The image processing method according to claim 27, further comprising:  
performing statistical processing on identification results of color spaces of the image data that was previously processed; and

performing prescribed processing using a result of the statistical processing.

29. The image processing method according to claim 27, wherein the acquired color information of the object that has been recognized in the image data is acquired by converting the image data into a reference color space a plurality of times using different conversion parameters each time, each of the different conversion parameters corresponding to a different color space.

30. The image processing method according to claim 27, wherein the color information stored in the database includes at least one or more of: information indicating a saturation range, information indicating a hue range, and information indicating a target color.

31. The image processing method according to claim 28, wherein the result of the statistical processing includes at least one or more of: a saturation histogram, a hue histogram, and an average color.

32. An image processing program for causing a computer which accesses a database that stores items of characteristic quantity information to be used for recognizing, in image data, respective objects and items of color information of the respective objects, the characteristic quantity information and the color information are correlated with each other for the respective objects, to execute the steps of:

judging whether information indicating a color space of image data, and which is appended to and input together with the image data, satisfies a prescribed condition;

performing image recognition processing on the image data using the items of characteristic quantity information stored in the database, and acquiring color information of an object that has been recognized in the image data by the image recognition processing, if it is judged that the information indicating the color space and that is appended to the image data does not satisfy the prescribed condition; and

searching the database to retrieve the color information indicating a color of the object recognized by the image recognition processing, and identifying a color space of the image data by comparing the acquired color information with the retrieved color information.